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ABSTRACT

This document addresses the benefits that area created by the Hillsborough Community College for the Tampa Bay economy and the State of Florida. The study addresses four types of benefits: (1) contributions to job and income formation; (2) higher earnings captured by existing students; (3) a broad collection of social benefits (improved health, reduced crime, lower welfare, and unemployment); and (4) the return to the taxpayers for their community college support. The results of the study on these benefits areas are as follows: (1) by educating students and adding them to the local workforce, the HCC instruction adds $683.7 million in annual earnings to the Tampa Bay economy; (2) for every credit completed, the average student will earn $143 more per year; and (3) the money spent by the state government on education is beneficial to the taxpayers since people with higher education are less likely to abuse substances, use welfare or unemployment benefits, and commit crimes. The document gives much more evidence regarding the benefits of the HCC and concludes that the HCC is a great investment from a variety of perspectives. The college expands the minds of students, reduces demands for social services, and contributes to state and local economies. (MZ)

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HILLSBOROUGH
Community College

The Socioeconomic Benefits Generated by Hillsborough Community College

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State of Florida

Executive Summary

28-Feb-2003

M. Henry Robison & Kjell A. Christophersen

CCbenefits Inc.
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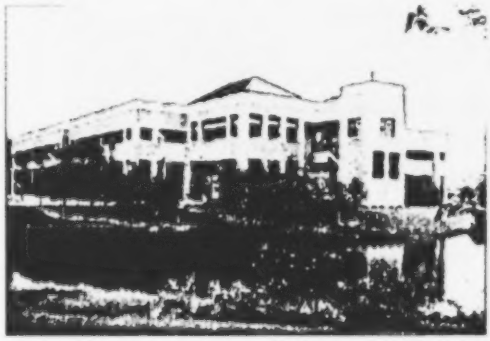
Executive Summary

HIGHLIGHTS

- Hillsborough Community College pays $40.9 million annually in direct faculty and staff wages and salaries, and accounts for an additional $716 million in wages and salaries off campus.
- Taxpayers see a real money "book" return of 9.9% on their annual investments in Hillsborough Community College and recover all investments in 12.8 years.
- Students enjoy an attractive 26% annual return on their investment of time and money—for every $1 the student invests in HCC, he or she will receive a cumulative $10.20 in higher future earnings over the next 30 years.
- The State of Florida benefits from improved health and reduced welfare, unemployment, and crime, saving the public some $12.8 million per year.

INTRODUCTION

How do the Tampa Bay economy and the State of Florida benefit from the presence of Hillsborough Community College (HCC)? An obvious question often asked, but rarely answered with more than anecdotes. In this study, CCbenefits, Inc. applied a comprehensive economic model they developed with funding from the Association for Community College Trustees (ACCT). The model, which took over a year to develop, was designed to capture and quantify the economic and social benefits of community colleges (CCs). It relies on data collected from individual CCs, and translates these into common sense benefit-cost and investment terms. The model has been subjected to peer review and field-tested on over 220 different CCs throughout the nation. Model results are based on solid economic theory, carefully drawn functional relationships, and a wealth of national and local education-related data. The model provides relief from the all-too-common "advocacy analyses" that inflate benefits, understate costs, and thus discredit the process of higher education impact assessment.

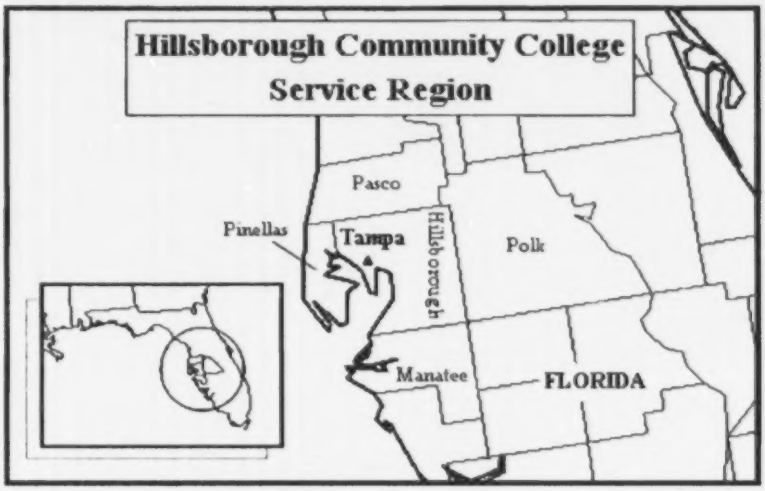


Four types of benefits are tracked: (1) contributions to job and income formation (regional economic benefits); (2) higher earnings captured by exiting students; (3) a broad collection of social benefits (improved health, reduced crime, lower welfare, and unemployment); and (4) the return to taxpayers for their CC support.

THE RESULTS

For a more in-depth exploration of this topic, the reader is encouraged to consult the main report, "The Socioeconomic Benefits Generated by Hillsborough Community College," containing the

detailed assumptions, their context, and the computation procedures.



➢ **Regional Perspective—the Hillsborough Community College Economy**

HCC accounts for $757.2 million of all annual earnings in the Tampa Bay economy (see map). The earnings explained by HCC are equal to that of roughly 22,637 jobs. The earnings and job effects break down as follows:

- *HCC Operations and Capital Spending*

HCC pays wages and salaries, which generate additional incomes as they are spent. Likewise, HCC operating and capital expenditures generate still further earnings. Altogether, these earnings account for $73.5 million annually in the Tampa Bay economy (equal to that of 2,733 jobs).

- *Higher Earnings due to Past Instruction*

Each year students leave HCC and join or rejoin the local workforce. Their added skills translate to higher earnings and a more robust Tampa Bay economy. Based on current enrollment, turnover, and the growth of instruction over time, the local region workforce embodies an estimated 8.9 million credits of past and present instruction (credit and non-credit hours). The accumulated contribution of past and present HCC instruction adds some $683.7 million in annual earnings to the Tampa Bay economy (equal to that of 19,903 jobs).

➢ **Student Perspective**

The student's perspective on the benefits of higher education is the most obvious: he or she sacrifices tuition and current earnings for a lifetime of higher earnings. For every credit completed HCC students will, on average, earn $143 more per year each year they are in the workforce. Alternatively, for every full-time year they attend they will earn an additional $4,238 per year. In the aggregate (all exiting students), the higher earnings amount to some $57.3 million per year for each year they remain in the workforce.

From an investment standpoint, HCC students will enjoy a 26% rate of return on their investments of time and money, which compares favorably with the returns on other investments, e.g., the long-term return on US stocks and bonds. The corresponding B/C ratio (the sum of the discounted future benefits divided by the sum of the discounted costs) is 10.2, i.e., for every $1 the student invests in HCC education, he or she will receive a cumulative of $10.20 in higher future earnings over the next 30 years or so. The

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payback period (the time needed to recover all costs) is 5.9 years.

➢ **Taxpayer Perspectives**

The state government spent $51,054,526 in support of HCC during the analysis year. Is this a good use of taxpayer money? Our analysis indicates that the answer is a resounding yes: returns far outweigh the costs, particularly when a collection of social savings is included in the assessment. For example, persons with higher education are less likely to smoke or abuse alcohol, draw welfare or unemployment benefits, or commit crimes. This translates into associated dollar savings (avoided costs) amounting to some $52 per credit per year, counted as an indirect benefit of HCC education. When aggregated across all exiting students, the State of Florida will benefit from $12.8 million worth of avoided costs per year, broken down as follows:

- *Improved Health*

Tampa Bay area employers will see health-related absenteeism decline by 15,985 days per year, with a corresponding annual dollar savings of $1.5 million. The state will benefit from the health-related savings of 420 fewer smokers and 149 fewer alcohol abusers. The corresponding dollar savings are $1,243,148 and $1,180,924 per year, now and into the future (these savings include insurance premiums, co-payments and deductibles, and withholding for Medicare and Medicaid).

- *Reduced Crime*

Studies show that incarceration drops with each year of higher education. In Tampa Bay, 197 fewer individuals will be incarcerated per year, resulting in annual savings of $2,269,002 (combined savings from reduced arrest, prosecution, jail, and reform costs). Reductions in victim costs (e.g., property damage, legal expenses, lost workdays, etc.) result in savings of $2,498,966 per year. Finally, that people are employed rather than incarcerated adds $873,635 of earnings per year to the economy.

- *Reduced Welfare/Unemployment*

There will be 494 fewer people on welfare, and 171 fewer drawing unemployment benefits per year, respectively, saving some $1,873,439 and $1,342,340 per year.

➢ **Taxpayer Return on Investment**

The return on a year's worth of state government investment in HCC is obtained by projecting the associated educational benefits into the future, discounting them back to the present, and weighing these against the $51,054,526 state taxpayers spent during the analysis year to support the college. The analysis is based on the portion of HCC operations that is wholly dependent on state government support. Two investment perspectives are possible, one broad and one narrow.

- *Broad Perspective*

Taxpayers expect their annual investment in HCC to result in higher lifetime earnings for students and social savings from lifestyle changes (reduced crime, welfare and unemployment, and improvements in health). From a broad investment perspective, the value of *all* future earnings and associated social savings is compared to the year's worth of state taxpayer support that made the benefits possible. Following this

procedure, it is estimated that HCC provides a B/C ratio of 12.6, i.e., every dollar of state tax money invested in HCC today returns a cumulative of $13 over the next 30 years.

- *Narrow Perspective*

The narrow perspective limits the benefit stream to state government budgets, namely increased tax collections and expenditure savings. For example, in place of total increased student earnings, the narrow perspective includes only the increased state and local tax receipts from those higher earnings. Similarly, in place of overall crime, welfare, unemployment and health savings, the narrow perspective includes only those portions that translate to actual reductions in state and local government expenditures.

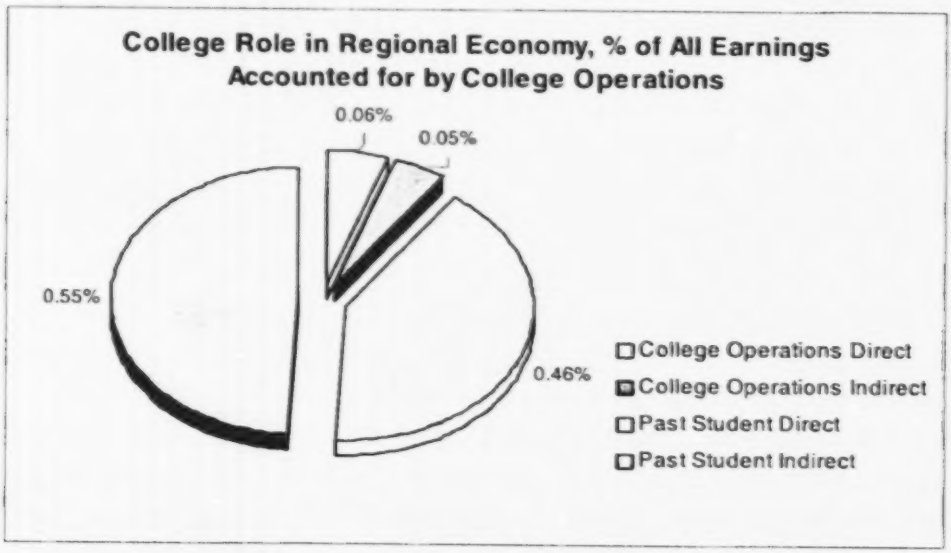
Note here that it is normal for the state government to undertake activities wanted by the public, which are unprofitable in the marketplace. This means that positive economic returns are generally not expected from government investments. From the narrow taxpayer perspective, therefore, even a small positive return (a B/C ratio equal to just greater than 1, and/or a rate of return equal to or just greater than the 4.0% discount rate used in this analysis) would be a most favorable outcome, certainly one that justifies continued taxpayer support of the college. For HCC, the narrow perspective results greatly exceed the minimum expectations. The results indicate strong and positive returns: a RR of 9.9%, a B/C ratio of 2.1 (every dollar of state tax money invested in HCC today returns $2.07), and a short payback period of only 12.8 years.

CONCLUSION

The results of this study demonstrate that HCC is a sound investment from multiple perspectives. The college enriches the lives of students and reduces the demand for taxpayer-supported social services. Finally, it contributes to the vitality of both the local and state economies.

Benefits at a Glance

Regional Analysis			Regional Impact
Regional Economic Development			
Increment from HCC operations			$73,465,000
Increment from past student productivity			$683,710,000
Total			$757,175,000
Job equivalent			22,637
Annual Benefits			
Higher earnings			
Aggregate (all students)			$57,333,171
Per Credit			$143
Per year full time equivalent student			$4,238
Social savings			
Aggregate (all students)			$12,808,631
Per Credit			$52
Per year full time equivalent student			$1,553
Investment Analysis	**RR**	**B/C Ratio**	**Payback (Years)**
Students	25.7%	10.2	5.9
Taxpayers: Broad Perspective	NA	12.6	NA
Taxpayers: Narrow Perspective	9.9%	2.1	12.8



In sum, the graph shows that the college explains a total of 1.1% of all earnings ($68.12 billion) generated from all sources in the economic region.

This short summary report is one of five products generated for this impact study. In addition, one long report intended for economists and CC institutional researchers (85 pp) lays out the detailed assumptions and analysis. Another report (9 pp) provides detailed tabular results by gender, ethnicity, and entry levels of education, and a one-page fact sheet contains highlights of the study results at a glance. Lastly, a PowerPoint presentation is developed showing the main results for CC Presidents to adapt and use in speeches before state legislators and other education stakeholders.

FACT SHEET: ECONOMIC IMPACT OF HILLSBOROUGH COMMUNITY COLLEGE

What role does Hillsborough Community College (HCC) play in the local economy? Business sales in Tampa Bay are $1,871.2 million greater, and labor income is $757.2 million greater due to the past and present operations of HCC. The benefits of a robust local economy translate into job and investment opportunities, increased business revenues, greater availability of public funds, and an eased tax burden.

HCC stimulates the local economy

• Hillsborough Community College had operating expenses of $99.5 million in fiscal 2001, and spent $74.4 million (75%) of this in Tampa Bay to purchase supplies and pay salaries and benefits.

• HCC employs 785 full-time and 1,000 part-time faculty and staff. HCC paid faculty and staff wages of $45.4 million in fiscal 2001.

• For every $1 HCC pays in salaries and benefits, there is an additional $0.80 in salaries and benefits generated off-campus in the Tampa Bay economy—this is the commonly known multiplier effect.

• HCC activities encourage new business, assist existing business, and create long-term economic growth. The college enhances worker skills and provides customized training to local business and industry. It is estimated that the present-day Tampa Bay workforce embodies over 8.9 million credit and non-credit hours of past and present HCC training.

• HCC skills embodied in the present-day workforce increase the output of industries in the Tampa Bay economy where the former students are employed by $825.49 million. Associated multiplier effects (sometimes called indirect effects) in other industries increase sales by $958.64 million.

• HCC skills from current and former students increase salaries and benefits in Tampa Bay by $312.0 million directly, and by another $371.7 million indirectly in fiscal 2001.

HCC leverages taxpayer dollars

• The state government allocated $51.1 million in support of Hillsborough Community College in fiscal 2001. For every dollar appropriated by the state government, HCC's spending alone generated $1.44 in salaries and benefits in Tampa Bay.

• For every dollar appropriated by the state government in fiscal 2001, student earnings will increase by an average of $1.12 per year, every year through the rest of their working lives. Likewise, for every state dollar appropriated, Tampa Bay will see social savings of $0.25 per year, every year (i.e., reduced incarceration and health care expenditures, reduced expenditures on unemployment and welfare, and reduced absenteeism).

HCC generates a return on government investment

• State government support for Hillsborough Community College in fiscal 2001 will be fully recovered in 12.8 years, in the form of higher tax receipts (from increased student wages) and avoided costs (e.g., from reduced public expenditures on incarceration).

• Accounting for increased tax receipts and avoided costs, the state government will see a rate of return of 9.9% on their fiscal 2001 support for HCC.

HCC increases individuals' earning potential

• 28,857 credit and non-credit students attended the college in fiscal 2001, 89% of which were employed full- or part-time while attending.

• 94.0% of the students stay in the region and contribute to the local economy after they leave the college.

• Studies demonstrate that education increases lifetime earnings. The average annual earnings of a student with a 1-year certificate is $26,287, or 80.8% more than someone without a high school diploma or GED, and 16.0% more than a student with a high school diploma. The average earnings of someone with an Associate Degree is $30,911, or 112.6% more than someone without a high school diploma or GED, and 36.4% more than a student with a high school diploma or GED.

• After leaving the college, the average HCC student will spend 38 years in the workforce. The student who leaves with a two-year college degree will earn $315,672 more than someone with a high school diploma or GED.

• Over their next 38 years in the workforce, the average HCC student's discounted lifetime earnings will increase $10.20 for every education dollar invested (in the form of tuition, fees, books, and foregone earnings from employment).

• Students enjoy an attractive 25.7% rate of return on their HCC educational investment, and recover all costs (including wages foregone while attending Hillsborough Community College) in 5.9 years.

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